

2020 Post-Enumeration Survey Update

Discussant Comments

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General comments

- We commend the Census Bureau for achieving a very credible 2020 PES despite delayed interviews that might have inflated inconsistencies between the census and PES
- PES net undercount of 0.24 percent is close to the DA middle series (0.35)
- Estimates of correct enumerations, erroneous enumerations and omissions were similar to 2010
 - 94.4 percent (2020) versus 94.7 percent correct enumerations in 2010
 - 2.2 versus 3.3 percent erroneous enumerations (decline due to reduction in duplicates due to national unduplication in the census)
 - 5.8 versus 5.3 percent omissions
- Evidence of reduction in precision of PES estimates not clear—some standard errors increased; some decreased; improved methodology would have yielded somewhat higher, truer standard errors

Evidence of challenges to the 2020 PES

- Noninterview rate, non-vacant housing units
 - 16.8 percent versus 3.7 percent in 2010
 - 4/5 of 2020 noninterviews were interviews conducted but yielding insufficient information
- P-sample omission rate was high at 13.05 percent, although the Bureau notes this is not a serious concern as long as the DSE independence assumption holds
- Proxy interviews
 - 7.0 percent versus 3.7 percent in 2010
- Unresolved match status (match status imputed)
 - 6.4 percent versus 3.7 percent in 2010
- Unresolved enumeration status (enumeration status imputed)
 - 11.6 percent versus 4.8 percent in 2010

Undercount of young children (0 to 4)

- 2.79 percent with PES versus 5.4 percent with demographic analysis (DA)
- The 2010 coverage measurement program estimated 0.72 versus 4.6 percent DA
- DA is likely to be most accurate for young children, implying PES estimate of undercount of young children is low but perhaps improved between 2010 and 2020
- A 2019 planning document on the PES design, recently released to the public (memorandum 2022.06), indicated that “correlation bias adjustment factors are currently being researched for young children and Hispanic origin”
- Were such adjustment factors developed?
- In any case, the low estimate from the PES suggests that there are systematic causes of the undercount that the PES methodology cannot fully overcome

Undercount of Hispanic population

- 4.99 percent with PES; not yet estimated with DA
- This compares to 1.54 percent in 2010, a marked increase reflecting, at a minimum, unique challenges to counting this population in 2020
- As with the 2010 Census, state-level PES estimates to be released this summer will not include breakdowns by demographic groups (but will include breakdowns by operational factors)
- In 2010, no state coverage estimate was significantly different from the national estimate; comparisons of 2020 state census counts with state population estimates suggest that this may not be true in 2020
- If state differences are observed, Hispanic undercounts could be an important contributor

Enumeration of persons of college age

- With improved unduplication in the 2020 census, duplicate counting of college students should have been less an issue than if a pandemic had struck during an earlier census
- Nevertheless, DA estimates indicate an overcount of 3 to 4 percent among persons 18-24; the PES shows an *undercount* of 1.62 percent but for 18-29 (DA shows a 2 to 3 percent undercount of persons 25-29) and excluding GQ
- Counting students in the right place (their college locations) presented an even greater challenge
- Exclusion of group quarters from the PES makes this more difficult to assess
- That the PES sample cannot support substate estimates, despite its similarity to the 2010 design, eliminates potentially best data for assessing this issue

Census Bureau questions

- Our current approach to conducting a PES has an assortment of complex and extensive field and matching operations. What alternative designs or changes does CSAC recommend to lower the risk of field or clerical problems?
 - These operations are indeed complex and extensive, but they have been developed over a period of decades with contributions from some of the Bureau's leading researchers
 - The next question from the Bureau raises the possibility of incorporating administrative records into the process, which could reduce some of the field operations but add complexity
 - With some time, CSAC may be able to generate some additional suggestions, but none emerged in the few days we had to prepare this discussion

Census Bureau questions

- In an effort to preserve the independence assumption required for dual-system estimation, the 2020 PES limited the use of administrative records that were used for the Census. How can the PES use administrative records to help measure coverage of the census?
 - In what way did the 2020 PES limit the use of administrative records that were used for the Census?
 - The 2020 Census Experiments and Evaluations includes an evaluation of dual-system estimation using administrative records in place of the PES
 - The Census Bureau has previously explored triple system estimation in which administrative records would become a third source in addition to the census and the PES
 - We know considerably more today about the strengths and limitations of administrative records for census applications than we did when these ideas were first proposed
 - That administrative records do not cover the population uniformly and do not lend themselves to exclusion of group quarters pose significant challenges

Recommendations

- If the Census Bureau included correlation bias adjustment factors for young children and/or persons of Hispanic origin, the Census Bureau should publish details of these adjustments
- While much lower priority than improving the enumeration of young children, the Census Bureau should seek to develop a (better) adjustment for correlation bias for young children for 2030
- If state estimates show significant differences in net coverage error, and one or more states with large Hispanic populations show larger than average undercoverage, the Census Bureau should estimate the contribution of Hispanic undercoverage to such states' total undercoverage

Recommendations cont'd

- While the Census Bureau will not be publishing PES estimates below the state level, we encourage the Bureau to conduct its own, internal assessment of census accuracy in counties with large college populations using all available sources
- The Census Bureau should provide CSAC with an update on its experiment(s) to incorporate administrative records into its census coverage evaluation